1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

eral men might be within reach. Mesquite was picked day after day until the bushes held no more, even after they thought they had enough, because mesquite was their staple.

On returning home late in the afternoon, the beans were sorted. The dry beans were put on the roof of the house to dry more thoroughly. These were piled, load upon load, until the last load had remained for three or four days. Should it be cloudy or wet, they were taken off the roof and covered. The thoroughly dry beans were then stowed away in huge basket granaries. An average family would have one large granary filled, with a surplus stored in the house in large pots.

The green beans sorted out at the end of each day's gleaning were prepared at once. Mesquite beans resemble our string beans, but while the pods can be readily pulverized in a mortar, it is practically impossible to crack the seeds. These greener pods were pounded up and, without removing the hard seeds, were mixed in water for a drink. Or this was boiled and used as a liquor to mix with other ground seeds.

After the storage receptacles were filled, the beans that were discarded as not good enough for storing were ground to be made into cakes. The ground bean meal was sifted in a Pima tray-basket by shaking it over the edge onto a cloth. An elliptical hole (eighteen inches long, twelve wide, by ten deep) was dug in the ground and sprinkled with water until its surface was firm. The sifted flour was poured into this, sprinkled, another layer of flour added, sprinkled, and so on. Finally it was sprinkled and covered with dirt. The following morning they would remove the hard cake of mesquite flour. A woman kept busily at this until twenty or more were prepared. These cakes (hapa'ndj) were intended for use on damp days when the stored pods could not be ground because they were damp. (Mesquite beans absorb the slightest moisture in the atmosphere.) A bit of the cake would be broken off, soaked in water to be used as a drink, or boiled and mixed with other ground seeds.

Mesquite was ordinarily used only after pounding in a mortar and grinding on a metate. This was a daily task of the women. The ground meal formed the basis of most food preparations.

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

252 Occasionally a quantity was ground and stored in a pot to be eaten dry by the pinch, with a swallow of water. Sometimes the dry pods were boiled without grinding, the liquor to be added to other ground seeds. Mesquite juice was not fermented.

Screw beans, which when picked are bitter or sour, were rotted in a pit for ten days or more, until they became soft and sweet. The pit was lined above and below the beans with green arrow-weeds and the whole covered with dirt. Such pits were made near the dwelling.

222 252 A number of varieties of wild seeds were gathered, all in the same fashion by stripping the seeds from the plants with the fingers into a basket held beneath. Seed beaters were not used. None of these served for more than to give variety to the meals. The plant used more than others was ĭkse'vâ, which furnished tiny red seeds.[2] The seeds were so tiny that a large quantity was needed. They were pounded in a mortar and the chaff blown out [272] as they were shaken in a shallow basket. They were next parched and ground on a metate. Their use was principally for a drink. It was said to feel cool, so that men hunting for jackrabbits liked to drink this. Another low bush, ᵃ'tŏ'n, had tiny black seeds gathered in December. These were also prepared by pounding, parching, and grinding, and were eaten dry by pinches or mixed with water for a drink. Two other seeds were prepared differently. These were âvâa'c, a low bush,[3] and kâvâsω, a common bush three to four feet tall, both gathered in December. The seeds of the latter were tiny and black. These were pounded in the mortar, but not parched. A fire was built in a hole, the coals raked out, and the ashes soaked or damp dirt placed over them. The seeds put in the hole were covered with green leaves, followed by a layer of coals. The whole was plastered over with soaked hot ashes to retain the heat. The following morning they were ground on the metate, then mixed with water to a stiff dough [241] which was eaten raw. Another wild seed plant, ĭkca'mac, differed

[2] This was a low bush, two feet high, with sparse leaves standing out from the stem two inches apart.

[3] Possibly from âvᵃa'k, "I am walking," referring to stripping the bushes as one walked along.

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

from these in that it was sometimes cultivated. This was a weed [241] 222 252
resembling tall Bermuda grass. The seeds were pounded in a mortar to remove the hulls, sprinkled with water, and ground on a metate. The meal was mixed into a dough with a little salt. It was baked in the ashes, which were later washed off, and eaten with mesquite bean soup and the like. The seeds of ȧgwa'vȧ, probably pigweed, were also eaten.

While seeds appear to have been gathered in the late fall, i.e., December, berries were gathered in May and June. A bush about four feet tall, axtŏ'tȧxa'n, bore little sweet red berries. The berries were washed and thrown into hot water to boil. They [272] cooked quickly. This was strained through a cloth, the berries mashed, and replaced in the liquor. This was used as a drink. Sometimes ground wheat (not mesquite) was cooked in this for a mush. If they wished to store the boiled berries, they were spread [251] on a cloth in the shade, and stored in pots when thoroughly dry. Similar berries, axtŏ'tȧvi' (so called because they were bitter?), were prepared in exactly the same way. Mistletoe (kamu'c) grew plentifully on the mesquite bushes. Sprigs of this were gathered, the berries stripped off and boiled to furnish a juice which was sticky but tasteless. This was used as a liquor for wheat mush. Somewhat later than these, in June, the little blueblack berries of Crucifixion thorn (? uwe') were gathered. They were mashed in a basket to make a foamy liquid which was eaten without cooking. Sometimes the berries were dried and stored: when wanted they were soaked in hot water.

A sifter (caxara'c) was used with the axtŏ't berries. This was [115] elliptical, like those of the Pima,[4] shallow, and about a foot long. Thin willow twigs were laid transversely and longitudinally, and bound to the willow hoop.

When a young girl had gathered axtŏ't and uwe'berries for the first time, it was customary for some older woman to mash and rub them on the girl's arms so she would be industrious.

The nuts of the abundant ironwood tree were ground and [171] leached after the fashion in which California Indians prepare acorns. By the end of the season, October, they are said to lie

[4] Russell, *Pima Indians*, p. 146.

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

252 [222] thickly under the trees. Gathered in piles, they were beaten until broken, winnowed in baskets, and the meats taken home. Several women together parched them by tumbling with coals; then they were finally ground on the metate and again winnowed in baskets. This occupied a morning. At noon the ground meal was taken to the river bank, where it was put in a big hole, prepared by firmly patting down the sand. One woman alone proceeded to [463] leach the bitter meal; one who was specially versed in the technique. She was called "a woman with dry hands" (ica'l,asŭtk, "dry hands"). She alone fetched water to pour through the meal, repeating the soaking as it drained away. All afternoon was required for this task. So long as the nuts remained bitter, the water poured on them continued foamy. When the liquid was finally clear, all the women cut the meal cake with sharp sticks, lifted out their portions, carefully scraped the sand from the bottom, and carried them home in baskets. This was eaten dry.

The little sour beans of the cholla cactus (? atŏ't; also the beans), ripening in March or early April (?), were pit roasted. These were placed on a flat rock in the mountains to be rolled about with a stick to remove the spines. The pit in which they were roasted was small (up to two feet in diameter, one foot deep), since the beans were only about the size of peanuts, and it was hard work to fill the hole. Flat stones were heated in the pit. Late in the evening the beans were put in the hole on a layer of branches of a certain green bush covering the hot stones. They were heaped higher than the surface of the ground, covered with another layer of the same bush, then more hot stones, and banked with a little dirt. A small fire was started over this to keep the stones hot. They were ready in the morning, when they were taken out to dry, while the women went off to gather more.

[222] Opuntia cactus fruit, which was rare in this locality, was gathered in September. It was eaten only fresh, and was said to [824] give the eater chills.[5] The prickly pear was rolled on the ground with a stick to remove the fine spines or brushed with a bit of sage bush. Tongs were unknown. It was split, peeled, and the 824 [231] [171] flesh eaten raw. (Sometimes the juice was squeezed on a white horse to make decorative spots.)

[5] Lloyd (p. 123) notes identical Pima opinion.

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

horse to make decorative spots.) Both the fruit and the plant were called kălyă'p, "flat," for the flat leaf-like stems. 824

Yucca baccata grew in the desert to the north. The banana-like fruit was eaten fresh; also stored by splitting and drying. Plant and fruit were ĭtcakwa'tc. 222 [251]

Some stems and leaves of plants were eaten. A plant growing in the mountains (hence called âvi', "mountain") looked like asparagus and was bitter. The stems were roasted in ashes. A little plant, called mŭckwo', was washed and boiled. When tender this was squeezed out between the hands and eaten with salt. The leaves of âgwa'vâ, probably pigweed, larger than spinach leaves, were boiled and eaten with salt. This was gathered in the fall. 252

Mescal, the agave plant (maðĭ'l), was not much eaten because it did not grow in this locality. A few plants grew on the higher parts of the mountains to the south and more plentifully beyond in that direction. It was gathered by men because it grew too far away for the women to go. Most that they used was brought from the Papago country in cooked form. The growing plant was severed from its root by the customary chisel (n,ĭmtakĭ't or maðil,yĭmtâkĭ'tĭc, "mescal–to cut off with"). This was a stick twenty inches long, two in diameter, flattened near one end to provide a chisel edge at one side. (The chisel edge was not at the end, as with other tribes.) This was held against the base of the mescal and hammered with a convenient stone or stick. The long leaves were trimmed short with a knife; the mescal hatchet of other tribes being unknown. One leaf was left long so that the heads might be tied in pairs, or they were fastened in pairs by a stick thrust through them. A man would bring home only six or eight, not a full load, because they were scarce. 222 [137] [262] [462] [439] 222 412

The mescal heads were baked in a pit. A fire was built in it, but the usual stones omitted. The coals were raked out, the ashes sprinkled a little, the heads laid on this, covered with dirt, then ashes and a little fire. If prepared late in the morning, they were allowed to bake all the following night. The short leaves remaining on the baked head were stripped off to be chopped up and mashed in a mortar. This mass was spread to dry on peeled 252

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

252 sticks laid side by side or on a cloth, and when dry was rolled in a bundle. This was called mĭl,pŏk, "spread," or hama'ṇk, "pruned; trimmed off." The head proper was eaten without mashing. The prepared mescal could be soaked in water and [272] chewed on, or the foamy sweet liquor drunk.

Tule pollen and roots formed a most minor food. A child playing or a hunter would pause to strip the pollen off in his hand and [222] swallow it. Women gathered it occasionally. They broke the heads off gently so as not to shake out the light pollen, holding a basket beneath to catch the heads. Using a large pot placed on its side for protection against the wind, the heads were shaken out inside it. The pollen was poured into the basket, which was rocked from side to side to bring the chaff to the top. A sweet mush was made of this pollen mixed with a little ground wheat. [251] When they wanted to preserve it, a hole was made, sprinkled and patted, the pollen poured in layer by layer, each being sprinkled, and the whole covered with dirt. A little fire on top baked it cake-like by the next day. Sometimes the large roots of older tules were chewed. They might also be dried and ground to make a gruel. Tules are at'ăpi'l.

[137] Sunflowers grew wild, but were not a foodstuff.

Travellers sometimes boiled the water-filled pulp of the barrel cactus (mĭltŏ'ṭ) with a little alkali.

222 The time when the giant cactus (sahuaro) fruit ripened, the middle of June, was eagerly welcomed, not because the fruit formed any considerable portion of the dietary but as an occa- [527] sion for celebration and debauch. The plant was not common in Maricopa territory proper, growing rather on the lower hill slopes north of the Salt River. Hence the desire to collect the fruit was spiced with the dangers incident to treading so close to Yavapai country. The Yavapai themselves descended from their mountains to gather it in the same area.

The fruit is ripe when it is red at the bud end. The few long spines it bears are at this end: these were readily plucked off [419] with the fingers. The fruit was gathered with a long hook: a pole (presumably a rib of this tree-like cactus) crossed obliquely near one end by a short stick to provide both a hook and crotch to

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

scraper hoe of the Mohave,[22] but used the same planting stick as a shovel, cultivating while standing. 412

Corn was almost always prepared on the metate before it was used. If green the kernels were mashed; when dry they were thoroughly ground. It was almost always eaten in the form of mush. Green corn was mashed, wrapped in the husks, and either boiled or placed on a spot previously heated by the fire, covered further with husks, then ashes and a little fire until baked into a loaf. Green corn was sometimes lye-hulled: half-boiled, ashes added, and stirred until the hull came free of the kernel. It was also cut from the ears, mashed on the metate and boiled with salt. The flavor of roasted corn was preferred to boiled. Kernels of roasted corn were plucked from the ear with the thumb nail and the handful poured into the mouth. 252●

Corn for storage was dried on the house roof and placed in the basket granary either on the ear or shelled. Sometimes ears were roasted on a pile of brush or coals and also dried on the roof. Or the kernels were removed to dry on a cloth. Roasted ears were not ordinarily prepared for storage, but if so, they too went into the granary. Dry corn might be soaked in water and gently pounded in a mortar to remove the hulls. 251 [252]

Wafer bread, corresponding to that of the Pueblos and Havasupai, was made, but instead of a stone gridle, a lenticular pottery plate (maθi'l) was used. This was about a foot in diameter, and less than half an inch thick (Pl. VI, *i*). It was made very hot on the coals, when the thin corn batter could be rapidly spread over its concave side to form immediately as a wafer-thin cake called havâri'k or maθi'lyâm. Corn of any color was used. This hot plate was in constant use in earlier days, since tortillas of parched wheat or seeds were made on it, the dough being patted out into cakes about the size of the hand. 252 415 [171]

Wheat, which displaced corn, was treated in much the same fashion. The ears were fastened in bundles of an inch diameter, roasted on coals, and thrown on the roof to dry. These were stored in large pots, and when wanted the grain was beaten out. 251

[22] *Ibid.*, p. 736.

252 [484] Parched ground wheat became a common article of food in the form of gruel (the Mexican pinole). It was always carried when travelling, when it might be mixed to a dough in a cavity hollowed in the top of a barrel cactus if nothing else was available, then roasted on the coals.

251 Beans came in two varieties: a little white bean (maxi'k xama'l, "bean white") and a brown (maxi'k gwĭs, "bean yellow"). They were prepared alike. After being shelled they were spread on the ground for three or four days until dry, then stored 252 in the basket granary. They were boiled, not baked. Parched and ground, they were also added to ground wheat, with salt, to make a gruel. Boiled beans might be drained, then fried in a vessel having the shape of a parching pan.

241 177 Black-eyed peas (axma') are not aboriginal but like wheat have been cultivated for a long time. Green pods were broken up like 252 our string beans and boiled. Like beans they might further be fried with fat. For storage they were broken, half-boiled in large 251 pots, spread out to dry and stored in similar vessels. Later green food might be had by boiling them further.

Pumpkins (xama't) and squash were kept in the storehouses. The rind of the pumpkin was hacked off and the seeds scooped from the interior. After these had dried on the roof overnight, the vegetable was cut spirally in long strips which dried thoroughly while hung from a beam slung under a shade. The strips were looped into bundles, fastened by a turn of one end, for 252 storage. The usual preparation was chopped bits of pumpkin boiled, with ground wheat stirred in. Pŭmpkins were also roasted whole, after the stem end was removed, the seeds scooped out, and this plug replaced. They warmed them, turning each side to the fire, then baking them in the ground after the coals were raked away. Pumpkin blossoms were also cooked. After boiling them, they stirred in ground mesquite beans, which had been soaked and strained, and ground wheat. Squash was also cooked like beans: pieces were dropped into plenty of fat and stirred until thoroughly amalgamated, then salt was added.

Watermelons (kwiðu'i) were known in two varieties, with pink [171] and black seeds, as on the lower Colorado. Beside being eaten

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

fresh, the pulp might be squeezed between the hands, the liquor strained through a cloth, and boiled to a syrup which was used on corn bread or wheat tortillas. The melons were of some importance in providing a fresh food during the winter. They were stored in the storage houses adjacent to the dwellings, where they may have been covered with sand to keep through the winter. They were not ordinarily stored by burial in sand in the fashion of the lower Colorado tribes, but this was resorted to if they were to be hidden from the enemy.

HUNTING

The semi-desert environment of the Maricopa provided only a meagre range of animals for food. Rabbits and other rodents were relatively abundant, but large game was scarce in the immediate vicinity. The larger mammals, such as deer and mountain sheep, could be hunted in the mountains to the south and west, but even there were by no means plentiful. A secondary source of flesh food was nearer home in the form of fish, with which the streams were well stocked at certain seasons. Consequently the Maricopa were primarily hunters of small game, chiefly rabbits, and were also fishermen. They had little interest in ranging far from home for larger game.

Rabbits, especially jackrabbits, bulked as large as mesquite in the food supply. In addition they took deer, mountain sheep, antelope, peccary, beaver, prairie dogs, doves, turkey, quail, and even made use of turtles, honey, and caterpillars, but none of these were regular foodstuffs. They stopped at nothing except outright carnivores, as well as dogs, badgers, gophers, ground squirrels, and porcupines, nor did they eat bird eggs.

Possibly because of a general indifference to hunting, tabus and rites were few. There was no notion here, as among the Havasupai, that wasting game made the hunter ill. A lad was prohibited from eating his kill, however, and mountain sheep hunting was something altogether special. Deer hunting was less restricted, but was preceded by a rite.

A lad dared not eat any animal, bird, or fish he caught. He brought it home and butchered it, but he had to give it away to

side to talk of happy things. When they had finished smoking four cigarettes, the same man would butcher and divide it among those present. They were careful to lift the flesh slowly from the ground. If it were jerked up, rain would pour down and it would thunder hard. Even when carrying it home, they would walk their horses slowly all the way. When they neared home, those on horses dismounted slowly and carefully lifted off the meat. These men would divide the meat among their friends and relatives, or after it was cooked invite them to eat. Those to whom it was given must thank the giver, else in winter it would rain hard or be very cold, or if summer, become so hot as to scorch the plants and sand storms blow. Similarly if one should beat or shake the mountain sheep skin or horns, the weather would be frightful. (The horns were not carried home.)[15] They had to be careful at all points in handling the sheep. Women cooked its flesh. It was not thrown into the pot, but put in slowly. Sticks had to be thrust into the fire slowly, too. Even when eating it, they chewed slowly, for fear of choking.

Peccaries were sometimes seen in the desert east of Sacaton; they were hardly ever found in Maricopa territory. Hence while the Pima hunted them, the Maricopa killed them only when passing eastward, as on a war party. The meat was divided, roasted and eaten on the spot. The tusks were not used. While the peccary is now known as k,ω'chĭlyuvacâðŏ'm, "wild pig," and the domestic pig as k,ω'c, obviously the latter was the original name for the peccary.

Beavers (pĕm) were eaten, especially the fat tail. There were a great many beaver in the neighborhood. The entrances of the beaver house were stopped up, while they dug through its top, using their digging sticks to kill the inmates.

No one would eat ground squirrels (aði'c) for fear of deafness.

Birds were not important in the diet and their eggs were never eaten. Quail, mourning doves, and whitewing doves could be

[15] Pima hunters also never brought home the horns. "Each man had a place set apart where he deposited them in order that they might exert no evil influence upon the winds or rains." The Papago deposited mountain sheep tails with feathers at springs during rain ceremonies (Russell, *Pima Indians*, p. 82).

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15 Maricopa

223 taken locally, and turkeys in the mountains north of Salt River.[25] Birds were shot, especially at their roosting places after sundown. They did not use a jacklight like the White Mountain Apache. A quail trap was also used. This was a basket-like contrivance of arrowweed propped on a split stick and baited with seed (Fig. 5). The prop had a scarf-joint at its middle, unbound, and simply stuck together to stand in unstable equilibrium. A string, fastened to the lower corners of the basket, looped around the stick to hold it taut. When the birds struck the string the

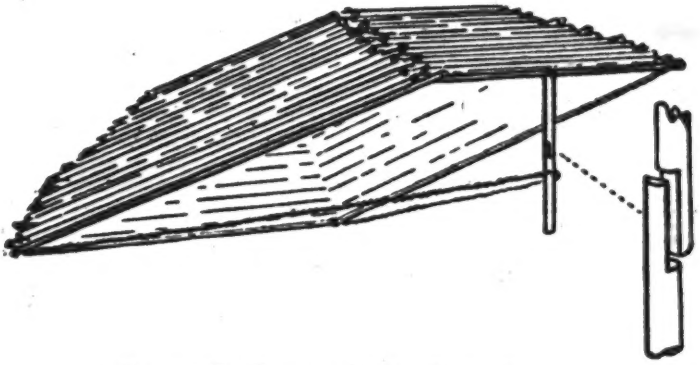

FIG. 5.—Quail trap, with detail of split prop

prop was upset and the trap dropped. The mechanical inefficiency of this contrivance nicely illustrates Maricopa indifference to things material. This trap was called 'aʀikŭ'm ("to trap" was
[825] tapĕ'tŭm); the split stick, kâca.u'n. Quail were aχma'; mourning doves, kuavâta'; and turkeys, ɯʀo'tĭc.

●252 Meat was more commonly broiled than boiled. Small birds were plucked and drawn, and spitted in rows on sticks. A great number of such spits might be set up around the fire. To roast small birds and rabbits, they brushed the ashes aside, placed the eviscerated animals or birds, still with fur or feathers, on the hot ground, covered them with ashes, and heaped coals over this. This method was called pa'vŭg; broiling was cil. The informants had never heard of pit-roasting small game. All small game and

[25] Quail were not tabu for women as among the Pima (*ibid.*, p. 80).

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

All small game and
fish was cooked by men; women, however, cooked deer and 252
mountain sheep flesh. The reason is not apparent. [462]

Large mountain turtles (kapĕ'ṭ), about a foot across, were [262]
eaten; also by Papago and Yavapai according to my informant. [171]
These were usually baked in ashes; sometimes boiled. The shells [237]
were not used for any purpose.

Honey was occasionally obtained from the flower stalks of 222
mescal, but these contain very little. This was the product of
large bees (mŭspo'kwĭni'l,ą, "black bee"). The classification of [825]
"bees" is rather interesting: working bees were called flies
(xălyąsmo''kwĭlyąvi'na); another bee with a yellow back (not a
hornet) was mŭspo'cĭlyąmŏ'kkąkwĭ'sĭc; a fourth variety, re-
sembling a wasp, was mŭspo'kwĭsĭ'c, "yellow bee." The nests of
working bees were found and the insects killed individually, but
their honey was not eaten.

A worm, called ąmĕ' (more probably a caterpillar, since it was
said to have a horn on each end) was caught, boiled, dried, and [252]
eaten.[17] They caught them in their hands in the spring and late
autumn. There was a peculiar way of catching them: with one
hand they caught the beast, broke off the end with the thumb
nail, squeezed it out, and inserted it between the other fingers of
the same hand. In some fashion they braided long strings of
these, perhaps because the "worm" coiled around its fellows.
Then they boiled and dried them. They were eaten dry or boiled. [252]
Dried "worms" were also heated in warm water and fried. The
finger tips got sore gathering them.

Pets (n,ąxa'tk, "my dog," any pet) may be conveniently de- 231
scribed here. These were dogs and various birds. The chicken
hawk was perhaps the sole bird deliberately excluded, because [753]
one who handled it would "get sick in the lungs." Turkeys were
not pets.

Dogs (xatk) were said to be like present-day dogs; some black,
others spotted. They were called by whistling or by calling their
names. Several expressions were recorded: kąθi'k, kąθi'k, "come,
come," govŭna'l,ŭm, "get out, go away," sĭkiyĭ'mdĭk, "go

[17] Said to travel rapidly. These are undoubtedly the same as the Pima [825]
ma'kŭm (*ibid.*, p. 81).

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa
Halchidhoma

also made for use in high water: these were two logs side by side with sticks tied across them. They used their hands for paddling and long punt poles. The Halchidhoma, like the Mohave, also ferried babies across the Colorado in large pots. These people were good swimmers; the Maricopa were not.

Fish were usually eaten fresh. The excess of a day's catch might be half broiled and hung to dry from the house beams. But no attempt was made to keep them longer than a week. Whether this was because such soft-fleshed fish cannot be successfully dried, or for want of knowledge or interest, I do not know.

Fish were either broiled or boiled with corn. In any event, they were always cooked by men, who served their wives before themselves. No reason was assigned for this, other than that it was so strongly customary as to be obligatory. Men never ate fish before their wives; when the wives had had enough they called their husbands.

Broiling was done by two methods. In one, the fish was always cut open along its right side near the backbone. If a man cut it on the opposite side, they made fun of him; told him to go back and grind his wheat (that is, that he was womanly, for he did not know how). The intestines cleaned away, the fish was spread open on the hot ground. Burning sticks were then propped over stones set around the fish so as to broil the upper side. All fish were treated in this fashion. They were broiled in this way very quickly. The other method consisted of cutting the fish along the belly, but not spreading the flanks. Again the coals were raked away, the fish laid side by side, and covered with ashes on which coals were heaped. It took all morning to cook them in this fashion.

They were boiled with salt. This took half a day. When done, finely ground corn, mixed with water to a thin gruel, was added to the pot of fish. The cook, always a man, stirred this, not round and round, but by inserting his stirrer down close to the sides of the vessel and lifting the fish. After the corn was added, another half hour was required to complete cooking. The stirrer used was a stick eighteen inches long, one and a half inches in

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa
Halchidhoma

252 [415] diameter, and wedge-shaped at one end. It will be noted that scales, skin, bones and all went into the mess. In fact, the enormous number of small bones these fish contained gave them no concern at all.

262 Shellfish and crayfish were probably not eaten, if they occur in these waters at all. My informants knew of no mollusks nearby and professed ignorance of the Colorado.

MEALS AND DOMESTIC HABITS

512 462 Domestic duties began before sunrise. A woman rose and immediately began her preparations for the morning meal, the cooking utensils being conveniently at hand near her head. [513] (They slept with their heads to the east: these articles were kept near the doorway which was on the east side of the house.) She [482] then went to fetch water sufficient for the day's supply, carrying a large pot on her head balanced on a cloth ring. Each family [415] had several large vessels for storing water, mounted on branching posts erected under the shade. Fetching water was a feminine task alone: they always made a point of having the storage jars filled before the sun rose.

252 Cooking was done under the shade, with which each house was provided, in the summer, but in winter anywhere in the open. If need be they erected a little screen of arrowweed stalks thrust into the ground to keep off wind and dust. They only cooked inside the dwelling if forced to by bitter cold. There, as outdoors, [372] the fire was not confined, as in a pit nor walled in. Cooking pots were supported on three stones. Today, a little trench is dug for the fire, the pot being supported on several iron rods or even 252 green sticks set across, but I was assured this was not aboriginal. 415 Clay cooking pots and bowls, ladles of clay and wood, mush stirrers, and baskets were the utensils. For a people primarily pottery using, they put an exaggerated value on the convenience of baskets (the shallow bowl baskets obtained from the Pima) and held it highly awkward to have to do without. Stone boiling was unknown. The mush stirrer was three or four arrowweeds twined together near one end (Pl. XIV, *d*).

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

Mesquite branches were considered the best firewood; of these the supply was abundant. Men would go out to burn down and break up wood, but they would not carry it home; that was a woman's task. Nor would they fetch water, grind seeds, nor ordinarily cook. Men, however, would kindle the fire to warm the house in the evening. A fire to cook by was built of several large chunks of wood at the sides with sticks between. The common palm drill was used to light it.

The preparation of meals was laborious rather than complicated. With mesquite as the staple, a large part of a woman's daily routine had to be given over to pounding it in a mortar and grinding it on the metate. The metate was also requisitioned for corn in all its stages and many of the wild seeds. Ability to labor long and rapidly at it was reckoned the chief of a housewife's accomplishments; so much so that every prospective bride was set to work grinding by her mother-in-law to prove her proficiency. The wooden mortar came in for far less use. In it they broke up the mesquite beans preparatory to grinding on the metate, hulled various seeds and shelled corn. The principles of cooking were simple and few. Mesquite flour and tule pollen were preserved in cakes made by packing layer after layer into a hole. Other foods, vegetal and flesh, were half-broiled, roasted, or boiled to be dried for storage. In the final preparations for the meal, great use was made of baking in the ashes: seeds, stems, corn, and small grain were treated in this fashion.[23] For this the ground was heated, and the ashes with a few live coals raked back over the article. Boiling was, however, the mainstay in cooking, at least for vegetal products: mesquite, corn, seeds, pumpkins, squash, and beans regularly went into the pot. Mesquite gruel, and in later days wheat gruel (pinole), was commonly mixed with other foods: in fact, ground wild seeds were used for little more than to give variety to the flavor of the gruel. Pit roasting was rare, since mescal and cholla beans were obtained only infrequently. Parching with live coals in shallow bowls

[23] The Papago also roast rabbits in ashes (Lumholtz, *New Trails in Mexico*, p. 334).

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

252 Parching with live coals in shallow bowls
[177] probably came into common use only after the introduction of wheat. Previously its use was primarily to prepare seeds and [263] beans for grinding. Salt (ĕs'i') was little used in cooking. In fact, they had no true salt but scraped up saline or alkaline deposits [317] found near certain sloughs.[24] (Curiously enough, they say that commercial salt is bitter!)

264 Only two meals a day were served: morning and evening. The
512 morning meal was usually prepared at dawn, and when all had risen at sunrise, the family would eat. If a woman was seen preparing it after the sun had risen, they would call her lazy. Women were ordinarily away from home all day gathering foodstuffs. [857] Children who were left at home were expected to keep up the fire in order to have plenty of ashes on hand to roast with. Women had to spend a large part of their time grinding on the metate. They began preparing the evening meal in the middle of the afternoon: as soon as it was ready, they would eat it, that is, quite early, before sunset. This was the big meal of the day. (Breakfast and dinner had no special designations like ours.) There was no sort of grace before eating.

264
476 Women shared food. A woman would cook a large vessel full of pumpkin, then go about the village gathering bowls from other women, and share out the pumpkin in these until all was gone. She then carried them to the owners, who in turn brought her something.

264 Men ordinarily ate first, morning or evening; then the women and children of the household. But if there were present visitors [574] of either sex, friends and relatives, of whatever status, they were served even before the men. It happened to be the general rule that women served their husbands first, but this was because most foodstuffs were vegetal. Actually whoever cooked served the others first. Thus, men prepared the small game they killed —rabbits, fish, quail—and served their wives first. That is, "they treated each other alike."

[24] The salt gathering expeditions of Papago and Pima, with self-purification, were not made by the Maricopa (Lumholtz, *New Trails*, p. 269; Russell, *Pima Indians*, p. 94).

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

PLATE III

177
342

A

B

[252]
[516]
[412]

C

MODERN MARICOPA HOUSES AND WOMAN GRINDING

[p. 82 A]

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

539x prairie dogs running about in the bushes. But they were afraid: they cried and ran home. Their mother ran toward them, asking "Did a scorpion sting you or a rattlesnake bite you?" The children said, "No, we saw something that looked dangerous." They described it. Their mother said, "That is the thing I spoke of last night." Then the boys went out and killed all the prairie dogs.

Then she told them of another animal that she saw farther away among the mesquite trees. "These are a little larger than the animals you killed," she said. She called them amă'lgĭc, pack rat. "You will never find them running about, but this animal piles up small sticks at the base of a tree. If you do not find it running about, you can see where it goes into its house. Stop up all the holes save one, and wait there. Then the other boy can throw sticks on top of its house to make it come out." The next morning they set out. When they saw the rats filling their burrows with mesquite beans, they thought them horrible creatures, so they went home, crying. When they were halfway, the older brother stopped the younger, saying, "That is the very kind our mother described; let us go hunt them." So they took home big bundles of slain rats.

The next night the woman described another kind of animal. She said, "They are horrible-looking creatures with long ears. When they raise their ears, as they stand in the east, it looks like a pair of fires. No child can hunt these rabbits and come home with two or three of them. A man who can use a bow and arrow well is the only one who can kill these rabbits (xĭlyâau')." They decided to try. They set out the next morning and saw them hopping around through the young, sprouting arrowweeds. When the rabbits saw them, they stopped hopping and raised their ears. The boys thought them awful-looking creatures and turned home crying again. The older brother stopped the younger, saying, "This is the very animal our mother described." So they went back for the rabbits and came home carrying them all around their belts. (They put the heads under their belts.)

●252 (She had three ways of preparing rabbits, so today we have
539x three ways, too. She would boil them, or she would build a fire, rake away the coals, place the rabbits there, and heap ashes, then

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

coals, over them. The third way was to spit them on arrow-weeds to stand over the fire.) [539^ 252]

She told them that night, that as she went on farther to the desert, she saw other animals. She described them: she said they have long ears and are much larger than rabbits. She said, "I see these animals every day; as I gather wild plants, they eat beside me. They know I can not harm them. Since you are only children, they might do the same with you." She called them kâu'l, jackrabbit. The next morning they started off again. When they reached the desert they saw the jackrabbits. They ran home crying again. It was hard for them to kill jackrabbits. The older brother said to the younger, "Now if we don't kill any jackrabbits, but went home dragging our bows and arrows, humans would cite this against the two brothers who went hunting but came back without a thing." So they tried hard and did kill some jackrabbits. They brought them home. When she prepared these, she ate them but would not feed any to her children. She said, "If a child ate this, it might have a big boil on its neck or body. Such a boil would be incurable. But older people can eat this, yet it may happen to them, too."[20] [262]

(When the boys brought home animals they had killed, they did not eat them. She told them that every time they hunted by themselves, they should not eat what they had killed.)[21] [224]

At night when they were ready to go to bed, she told them of another animal. She said, "This is a fearful thing for young boys like you to hunt. As I go toward the mountain, I see another sort of animal that grazes near where I gather things. These animals look as though they were wearing dry branches on their heads. They are called 'gwa'gâ, deer. But a child could not kill this animal, because he is not strong enough, for it has a tough skin." She told them this during the night. The boys said, "If an old woman can become so well acquainted with this animal, why can not boys, too?" Next morning they started off. They went quite a distance, until they came to the mountains. They saw a num-

[20] This tabu conforms with Maricopa practice.

[21] This also is Maricopa practice.

/82 cont./

000 cooking pots of many sizes.

From the Pima they also learned to weave cloth from
294 native cotton. The dress of the women formerly consisted of a
[177] piece of this cloth wound around the body under the arms and reaching to the knees, with an outer shawl for cold weather.
[302] The men wore only the breech-cloth, but painted their bodies elaborately.

The Maricopa, of course, possessed the same wealth of
262 native vegetal and animal foods as the Pima, and employed the same methods of gathering and treating them. The fruit of the giant cactus, found in unlimited quantities, is still one of their important staples. This strange creation of the plant world blooms in early spring and ripens its fruit in June and July. Using a long
[222] pole with a wooden blade at the end, the women cut the fruit from the plant and carry it to the settlements in large baskets. The
[252] fruit is eaten fresh, dried, made into jelly, or preserved. They
273 also make quantities of wine from it, first boiling the fruit, then draining the juice into large jars, which are kept in a heated house for a week to ferment. A number of women, sometimes twenty-
[476] five or more, formerly joined in making wine, and when it was
[574] ready their neighbors were invited to a great feast, which always ended in a debauch. This deplorable custom, along with many of a commendable nature, was derived from the Pima.

241 The Maricopa are a sedentary, agricultural people. The
[252] principal crop of their small irrigated farms is wheat, which they
[412] grind into coarse flour on the metate, or hand mealing stone.
582 /83/ The little that remains of their former social organization indicates that it was identical with that of the Mohave. Nothing could be learned tending to show that under this system marriage within recognized groups of kindred was prohibited. The union
584 was without ceremony, and formal consent of the parents was not necessary; if they did not send the young man away, it was assumed that they were willing to accept him as a son-in-law.

[764] As among other Yuman tribes, the dead are burned. Within
765 a few days after the cremation of the body of an important man a mourning ceremony, called Nyimich, is observed. Fuel is heaped up to form a pyre, on which are placed pieces of clothing of each of the near relatives of the deceased. The men march around the pyre shouting and crying, followed by the women carrying